AMENDMENTS TO CLAIMS

Claims 22 - 25 are added. All pending claims are reproduced below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously presented) A method for generating a highly condensed visual summary of video regions, comprising:

determining a dominant group in each of a plurality of video segments;

determining a key frame in each of the video segments;

defining a germ associated with each dominant group in each of the video segments, wherein the video segment less the germ defines a support in each of the video segments;

separating the germ from the video segments;

laying out the germs on a canvas; and

filling in the space of the canvas between the germs, wherein filling in the space of the canvas between the germs includes laying out one or more portions of the supports, wherein the one or more portions of the supports are positioned in the space such that at least one pixel value of the support relative to the closest germ is positioned corresponding to the position of that pixel value relative to the germ from which it was separated, wherein the canvas generated is a highly condensed visual summary of the plurality of video segments.

2. (Previously presented). The method of claim 1 wherein determining a dominant group includes:

determining a group within each of the plurality of video segments having the largest 3-D volume.

3. (Original) The method of claim 1 wherein defining a germ includes:

defining a two dimensional shape that encompasses the projection of the dominant group onto the key frame.

4. (Original) The method of claim 3 wherein the two dimensional shape is a rectangle.

5. (Original) The method of claim 3 wherein laying out the germs includes:

determining a scale factor to be applied to every germ such that the germs are scaled to the maximum size that fits into the canvas.

6. (Original) The method of claim 3 wherein laying out the germs includes:

placing the germs in rows, wherein each row has a height according to the longest germ in the particular row.

7. (Original) The method of claim 1 wherein filling in the space of the canvas includes:

assigning a pixel value of each point in the canvas to the same pixel value in the support associated with the germ closest to each point.

8. (Original) The method of claim 7 wherein if the germ closest to the point does not have a support that includes the point, the point is assigned the pixel value of the closest germ with a support that includes the point.

9. (Original) The method of claim 7 wherein the point is assigned a background value if no support includes the point.

10. (Previously presented) A method for generating a highly condensed visual summary of video regions, comprising:

determining a germ in each of a plurality of images, the germ containing a region of interest, wherein the video region less the germ defines a support in each of the video regions;

separating the germ from the video segments;

laying out the germs on a canvas; and

filling in the space of the canvas between the germs by laying out one or more parts of the support, wherein at least one pixel in the space corresponds to the support pixel from the closest germ, wherein the canvas generated is a highly condensed visual summary of video regions.

11. (Previously presented) The method of claim 10 wherein determining a germ includes:

detecting a face in each of the plurality of images.

12. (Previously presented) The method of claim 10 wherein determining a germ includes:

receiving user input, the user input associated with a part of an image.

13. (Previously presented) The method of claim 10 wherein determining a germ includes:

using an algorithm to determine the regions of interest of an image based on one or more methods selected from the group consisting of a face-detection algorithm, an object detection algorithms and user input.

14. (Previously presented) The method of claim 10 wherein laying out the germs includes:

determining a scale factor to be applied to every germ such that the germs are scaled to the maximum size that fits into the canvas.

15. (Previously presented) The method of claim 10 wherein laying out the germs includes:

placing the germs in rows, wherein each row has a height according to the longest germ in the particular row.

16. (Previously presented) The method of claim 10 wherein filling in the space of the canvas includes:

assigning a pixel value of each point in the canvas to the same pixel value in the support associated with the germ closest to each point.

17. (Previously presented) The method of claim 16 wherein if the germ closest to the point does not have a support that includes the point, the point is assigned the pixel value of the closest germ with a support that includes the point.

18. (Previously presented) The method of claim 16 wherein the point is assigned a background value if no support includes the point.

19. (Previously presented) The method of claim 1 wherein defining a germ includes:

detecting a face in each of the plurality of images.

20. (Previously presented) The method of claim 1 wherein defining a germ includes:

using an algorithm to determine a region of interest of an image.

21. (Previously presented) The method of claim 1 wherein filling the space of the canvas includes:

using a Voronoi algorithm to determine the shape of the support to be placed on the canvas.

22. (New) A method for generating a highly condensed visual summary of video regions, comprising:

determining a germ in each of a plurality of images, the germ containing a region of interest;

defining a support in each of the video segments, wherein the support is the video segment less the germ;

separating the germ from the video segments;

laying out the germs on a canvas, wherein there is no more than one germ for every video segment; and

filling in the space of the canvas between the germs to generate a highly condensed visual summary of the plurality of video segments.

23 (New) A method for generating a highly condensed visual summary of video regions, comprising:

determining a germ in each of a plurality of images, the germ containing a region of interest;

defining a support in each of the video segments, wherein the support is the video segment less the germ;

separating the germ from the video segments;

laying out the germs on a canvas;

defining a space between the germs; and

filling in the space of the canvas between the germs, wherein filling in the space of the canvas between the germs includes laying out one or more portions of the supports, to generate a highly condensed visual summary of the plurality of video segments.

24. (New) A method for generating a highly condensed visual summary of video regions, comprising:

determining a dominant group in each of a plurality of video segments;

determining a key frame in each of the video segments;

defining a germ associated with each dominant group in each of the video segments, wherein the germ is the x-y projection of the dominant group onto the keyframe;

separating the germ from the video segments;

laying out the germs on a canvas; and

filling in the space of the canvas between the germs, wherein the canvas generated is a highly condensed visual summary of the plurality of video segments.

25. (New) A method for generating a highly condensed visual summary of video regions, comprising:

determining a germ in each of a plurality of images, the germ containing a region of interest;

defining a support in each of the video segments, wherein the support is the video segment less the germ;

separating the germ from the video segments;

laying out the germs on a canvas;

computing boundary curves between the germs using a Voronoi algorithm;

defining a space between the boundary curves; and

filling in the space of the canvas to generate a highly condensed visual summary of the plurality of video segments.